

CLAIMS

What is claimed is:

1. A method for notifying one or more listeners of an event in a meta object facility repository (MOF), the event having an event type, the method including:
  - creating an event object for the event, the event object corresponding to the event sub-type;
  - performing the event;
  - calling a method for each of the listeners registered for event notification for the event type by passing said event object to listeners described in an event source interface corresponding to the event type, said method for each of the listeners registered for event notification implemented by each listener.
2. The method of claim 1, wherein a listener registers for event notification by passing a registration call to a class implemented by the MOF designed to track listener registrations in said event source interface corresponding to the event type.
3. The method of claim 2, wherein said class implemented by the MOF corresponds only to the event type.
4. The method of claim 2, wherein said class implemented by the MOF maintains a record of which listener is registered for notification of which events.

5. The method of claim 1, wherein the event type is a class, instance, or association.
6. The method of claim 1, further including calling a method for each of the listeners registered for event notification for the event sub-type by passing the event object to event sub-type listeners as indicated by a bitmask in a combination event source interface, the method for each of the listeners registered for event notification implemented by each listener, wherein a listener registers for event notification for an event type by setting a bit corresponding to the event sub-type in a combination event source interface.
7. The method of claim 1, further including:
- calling a method for each of the listeners registered for vetoable event notification for the event type by passing said event object to listeners described in an event source interface corresponding to the event type, said method for each of the listeners registered for vetoable event notification implemented by each listener; and
- ending said method for notifying before said performing the event if a veto is received by any of said listeners registered for vetoable event notification.
8. The method of claim 7, wherein a listener registers for vetoable event notification by passing a registration call to a class implemented by the MOF designed to track listener registrations in said event source interface corresponding to the event type.

9. The method of claim 8, wherein said class implemented by the MOF corresponds only to the event type.

10. The method of claim 8, wherein said class implemented by the MOF maintains a record of which listener is registered for notification of which events.

11. The method of claim 7, further including:

calling a method for each of the listeners registered for vetoable event notification for the event sub-type by passing the event object to event sub-type listeners as indicated by a bitmask in a combination event source interface, the method for each of the listeners registered for vetoable event notification implemented by each listener, wherein a listener registers for vetoable event notification for an event type by setting a bit corresponding to the event sub-type in a combination event source interface.

12. A method for notifying one or more listeners of an event in a meta object facility repository (MOF), the event having an event type, the method including:

creating an event object for the event, the event object corresponding to the event sub-type;

performing the event; and

calling a method for each of the listeners registered for event notification for the event sub-type by passing the event object to event sub-type listeners as indicated by a bitmask in a combination event source interface, the method for each of the listeners registered for event notification implemented by each listener, wherein a listener registers

for event notification for an event type by setting a bit corresponding to the event sub-type in a combination event source interface.

13. A method for registering for event notification of an event in a meta object facility repository (MOF), the event having an event type, the method including:

implementing a method for event notification corresponding to the event type;

passing a registration call to a class implemented by the MOF designed to track listener registrations in an event source interface corresponding to the event type.

14. A method for registering for event notification of an event in a meta object facility repository (MOF), the event having an event type and event sub-type, the method including:

implementing a method for event notification corresponding to a combination event type;

passing a bitmask to a class implemented by the MOF designed to track listener registrations in a combination event type source interface, the bitmask indicating on which event sub-types to receive event notification.

15. An apparatus for notifying one or more listeners of an event in a meta object facility repository (MOF), the event having an event type and sub-type, the apparatus including:

an event source interface corresponding to the event type; and

a memory storing an event object, said event object corresponding to the event sub-type, said memory coupled to said event source interface.

16. The apparatus of claim 15, wherein said event source interface is designed to call a method for each of the users registered for event notification for the event type by passing said event object to listeners described in said event source interface, said method for each of the listeners registered for event notification implemented by each listener.

17. The apparatus of claim 15, wherein said event source interface contains a second memory storing a record of which listener is registered for notification of which events.

18. The apparatus of claim 17, wherein said second memory further contains a class designed to track listener registration.

19. The apparatus of claim 18, wherein said class corresponds only to the event type.

20. The apparatus of claim 15, wherein said event source interface is further designed to call a method for each of the listeners registered for vetoable event notification before the event is performed and prevent the event from being performed if a veto is received by any of the listeners registered for vetoable event notification.

21. An apparatus for notifying one or more listeners of an event in a meta object facility repository (MOF), the event having an event type and an event sub-type, the apparatus including:

a combination event type source interface; and

a memory storing an combination event object, said memory coupled to said combination event type source interface.

22. The apparatus of claim 21, wherein said combination event source interface is designed to call a method for each of the users registered for event notification for the event sub-type by passing said combination event object to event sub-type listeners as indicated by a bimask stored a second memory coupled to said combination event type source interface, said method for each of the listeners registered for event notification implemented by each listener.

23. The apparatus of claim 21, wherein said combination event source interface is further designed to call a method for each of the users registered for vetoable event notification for the event sub-type by passing said combination event object to event sub-type listeners as indicated by a bimask stored a second memory coupled to said combination event type source interface, said method for each of the listeners registered for vetoable event notification implemented by each listener.

24. An apparatus for registering for event notification of an event in a meta object facility repository (MOF), the event having an event type, the apparatus including:

a listener interface implementing a method for event notification corresponding to the event type; and

means for passing a registration call to a class implemented by the MOF designed to track listener registrations in an event source interface corresponding to the event type.

25. An apparatus for registering for event notification of an event in a meta object facility repository (MOF), the event having an event type and event sub-type, the apparatus including:

a listener interface implementing a method for event notification corresponding to a combination event type; and

means for passing a bitmask to a class implemented by the MOF designed to track listener registrations in a combination event type source interface, the bitmask indicating on which event sub-types to receive event notification.

26. An apparatus for notifying one or more listeners of an event in a meta object facility repository (MOF), the event having an event type, the apparatus including:

means for creating an event object for the event, the event object corresponding to the event sub-type;

means for performing the event;

means for calling a method for each of the listeners registered for event notification for the event type by passing said event object to listeners described in an event source interface corresponding to the event type, said method for each of the listeners registered for event notification implemented by each listener.

27. The apparatus of claim 25, wherein a listener registers for event notification by passing a registration call to a class implemented by the MOF designed to track listener registrations in said event source interface corresponding to the event type.

28. The apparatus of claim 27, wherein said class implemented by the MOF corresponds only to the event type.

29. The apparatus of claim 27, wherein said class implemented by the MOF maintains a record of which listener is registered for notification of which events.

30. The apparatus of claim 26, wherein the event type is a class, instance, or association.

31. The apparatus of claim 26, further including means for calling a method for each of the listeners registered for event notification for the event sub-type by passing the event object to event sub-type listeners as indicated by a bitmask in a combination event source interface, the method for each of the listeners registered for event notification implemented by each listener, wherein a listener registers for event notification for an



event type by setting a bit corresponding to the event sub-type in a combination event source interface.

32. The apparatus of claim 26, further including:

means for calling a method for each of the listeners registered for vetoable event notification for the event type by passing said event object to listeners described in an event source interface corresponding to the event type, said method for each of the listeners registered for vetoable event notification implemented by each listener; and

means for ending said method for notifying before said performing the event if a veto is received by any of said listeners registered for vetoable event notification.

33. The apparatus of claim 32, wherein a listener registers for vetoable event notification by passing a registration call to a class implemented by the MOF designed to track listener registrations in said event source interface corresponding to the event type.

34. The apparatus of claim 33, wherein said class implemented by the MOF corresponds only to the event type.

35. The apparatus of claim 33, wherein said class implemented by the MOF maintains a record of which listener is registered for notification of which events.

36. The apparatus of claim 32, further including:

means for calling a method for each of the listeners registered for vetoable event notification for the event sub-type by passing the event object to event sub-type listeners as indicated by a bitmask in a combination event source interface, the method for each of the listeners registered for vetoable event notification implemented by each listener, wherein a listener registers for vetoable event notification for an event type by setting a bit corresponding to the event sub-type in a combination event source interface.

37. An apparatus for notifying one or more listeners of an event in a meta object facility repository (MOF), the event having an event type, the apparatus including:

creating an event object for the event, the event object corresponding to the event sub-type;

performing the event; and

calling a method for each of the listeners registered for event notification for the event sub-type by passing the event object to event sub-type listeners as indicated by a bitmask in a combination event source interface, the method for each of the listeners registered for event notification implemented by each listener, wherein a listener registers for event notification for an event type by setting a bit corresponding to the event sub-type in a combination event source interface.

38. An apparatus for registering for event notification of an event in a meta object facility repository (MOF), the event having an event type, the apparatus including:

means for implementing a method for event notification corresponding to the event type;

means for passing a registration call to a class implemented by the MOF designed to track listener registrations in an event source interface corresponding to the event type.

39. An apparatus for registering for event notification of an event in a meta object facility repository (MOF), the event having an event type and event sub-type, the method including:

means for implementing a method for event notification corresponding to a combination event type;

means for passing a bitmask to a class implemented by the MOF designed to track listener registrations in a combination event type source interface, the bitmask indicating on which event sub-types to receive event notification.

40. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for notifying one or more listeners of an event in a meta object facility repository (MOF), the event having an event type, the method including:

creating an event object for the event, the event object corresponding to the event sub-type;

performing the event;

calling a method for each of the listeners registered for event notification for the event type by passing said event object to listeners described in an event source interface corresponding to the event type, said method for each of the listeners registered for event notification implemented by each listener.

41. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for notifying one or more listeners of an event in a meta object facility repository (MOF), the event having an event type, the method including:

- creating an event object for the event, the event object corresponding to the event sub-type;

- performing the event; and

- calling a method for each of the listeners registered for event notification for the event sub-type by passing the event object to event sub-type listeners as indicated by a bitmask in a combination event source interface, the method for each of the listeners registered for event notification implemented by each listener, wherein a listener registers for event notification for an event type by setting a bit corresponding to the event sub-type in a combination event source interface.

42. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for registering for event notification of an event in a meta object facility repository (MOF), the event having an event type, the method including:

- implementing a method for event notification corresponding to the event type;

- passing a registration call to a class implemented by the MOF designed to track listener registrations in an event source interface corresponding to the event type.

43. A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for registering for event notification of an event in a meta object facility repository (MOF), the event having an event type and event sub-type, the method including:

implementing a method for event notification corresponding to a combination event type;

passing a bitmask to a class implemented by the MOF designed to track listener registrations in a combination event type source interface, the bitmask indicating on which event sub-types to receive event notification.